SERVED: July 8, 1999

NTSB Order No. EA-4780

UNITED STATES OF AMERICA
NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

Adopted by the NATIONAL TRANSPORTATION SAFETY BOARD
at its office in Washington, D.C.
on the 6th day of July, 1999

JANE F. GARVEY, Administrator, Federal Aviation Administration, Complainant, v. FRANK L. MAGNUSSON, Respondent.	Docket SE-15054

OPINION AND ORDER

Respondent has appealed from the oral initial decision of Administrative Law Judge William R. Mullins, issued on April 8, 1998, following an evidentiary hearing.[1] The law judge affirmed an order of the Administrator, on finding that respondent had violated 14 C.F.R. 91.111(a) and 91.13(a) in connection with a formation flight that departed from Wichita Mid-Continent Airport

[1] The initial decision, an excerpt from the transcript, is attached.

on December 10, 1996.[2] No sanction was imposed, as an Aviation Safety Reporting Program report had been properly filed. We deny the appeal.

Initially, it is important to address what is not at issue in this case. The Administrator did not charge respondent with deviating from a clearance instruction issued by air traffic control (ATC). The Administrator did not charge respondent with violation of formation flight requirements or of failing properly to see and avoid another aircraft, nor did she attempt to show, independent of the alleged collision hazard, that respondent acted carelessly or recklessly. Instead, the only operational charge brought relates to the alleged collision hazard, and it is that issue to which we must focus our attention.

Collision hazard cases typically have involved two types of situations: one in which we have relied primarily on the proximity of the two aircraft to establish the hazard;[3] and the

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[2] Section 91.111(a) states that no person may operate an aircraft so close to another aircraft as to create a collision hazard. Section 91.13(a) prohibits careless or reckless operations that would endanger the life or property of another. The section 91.13(a) allegation has been pleaded not as a separate, independent charge, but as one that follows automatically from the section 91.111(a) operational violation. See Administrator v. Pritchett, NTSB Order No. EA-3271 (1991) at fn. 17, and cases cited there. Accordingly, there is no need to discuss the section 91.13(a) charge further.

[3] See, e.g., Administrator v. Grantham, NTSB Order No. EA-4287 (1994) (aircraft within approximately 100 feet, and so close that the people inside could be identified); Administrator v. Arellano, NTSB Order No. EA-4292 (1994) (50-100 feet horizontal proximity; 100 feet vertical proximity).

other where we have also relied on the perceptions of those involved in finding that a hazard has or has not been created (although proximity may also have been demonstrated).[4] Those cases in which experienced pilots saw the need to take, and did take, evasive action are typical of the second group. In either case, when distances are discussed, witness credibility is often an issue.

Respondent was the pilot of the wing (following) jet aircraft in a two-Cessna Citation formation flight. In accordance with established ATC procedures, the lead aircraft maintained communications with ATC, with the wing aircraft listening. Also in accordance with ATC procedures, the transponder of the wing aircraft was in the standby position (thus emitting no signal). The transponder of the lead aircraft was on.[5] Respondent had radio communication with the lead aircraft, and also was able to communicate with ATC.

The lead aircraft took off first, followed by respondent. Shortly after takeoff, in the midst of a directed turn, respondent lost sight of the lead aircraft.[6] The sun was in his

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[4] See, e.g., Administrator v. Reinhold, NTSB Order No. EA-4185 (1994) (perceptions of experienced aircraft pilot that hazard existed demonstrated by evasive maneuvering); Administrator v. Tamargo, NTSB Order No. EA-4087 (1994) (pilot felt collision imminent and took evasive action).

[5] The unrebutted record indicates that this is done because two primary transponder signals broadcasting so close to each other as formation flight involves cannot be read, or can cause false readings. Tr. at 108, 123.

[6] The aircraft were first cleared to 230 degrees, and once airborne advised to turn to 270 and soon after to 280 degrees.

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eyes. Respondent proceeded to roll left, to avoid the last known position of the lead aircraft. After doing so, respondent testified, he saw an aircraft 4-5 miles away that he believed to be his lead aircraft, and flew towards it. At a certain point, respondent recognized that the aircraft he was flying directly towards was not his lead Cessna, but America West Flight 2897, a Boeing 737 aircraft. Although how close the two aircraft came is the subject of disagreement, respondent testified that he then made a steep, 90 degree banking 2G turn, to avoid the 737. Respondent then contacted ATC and the lead aircraft, and they all coordinated a join-up. Respondent believes he was never less than 1500 feet horizontally and 1000 feet vertically from the 737, and radar data was introduced to prove there was always a considerable margin between them.

The 737 pilots testified, on the other hand, that they believed the Cessna came too close, and they felt in danger. The non-flying pilot-in-command characterized it as a "near miss," within 400-450 feet horizontally and 100 feet vertically. Tr. at 24, 30. He stated "It was close. It was too close." Tr. at 32. Although in response to a question from respondent's counsel, the pilot-in-command first said that there was no emergency and no

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The record establishes only that respondent lost sight of the other aircraft somewhere near the time of the 270 degree direction and apparently before the 280 degree instruction. Tr. at 233. Respondent testified that he did not even hear the 280 instruction (Tr. at 248) and did not complete the turn to 270 (Tr. at 253).

collision hazard, he later clarified that he felt the closeness was a hazard, even though he didn't think there would be an actual collision. Tr. at 37, 60. His concern was captured on the ATC tape: "that was close … I could see his smile."[7] Exhibit A-3, at 2209:46 and 2209:50.

The flying first officer's immediate reaction was that respondent was "way too close," although he was going to miss them. Tr. at 71. Although he did not react immediately and take radical evasive action, he did increase the rate of descent and turned a little to the left to distance himself after respondent flew by. Tr. at 74. The first officer also testified that respondent at his closest was at a distance of 400-600 feet horizontally and 100 feet vertically. Tr. at 76.

Respondent here suggests that, if the pilots of the other aircraft did not take evasive action, we should find no collision hazard. Such a premise cannot be accepted, however, as often events occur so fast that we cannot react to them fast enough. This may have been such a case. That does not negate the danger that is created simply by being so close to one another. See Administrator v. Willbanks, 3 NTSB 3632 (1981) (pilots need to be able to avoid collision if other aircraft change heading towards them; respondent would not have been able to, given his close proximity).

[7] Thus contradicting respondent's claim that the FAA pressured the two to testify as they did.

In any case, we find the distance evidence presented by the Administrator, especially in light of the speed at which the two aircraft (both jets) were traveling, to be compelling evidence that a collision hazard was created. Respondent's challenge to the America West crew's eyewitness testimony of those distances comes in the form of radar data which, he argues, demonstrates that the two aircraft were never closer than 1/3 mile. Tr. at 282.[8]

The radar evidence, however, is entitled to little if any weight, and the law judge was correct in rejecting it. During the crucial period, there was a time of 36 seconds (on the radar, between 9:02 and 9:38) where there were no returns for respondent's aircraft, and therefore no information about its position. Respondent's experts plotted two locations on a straight line between the radar returns at 9:02 and 9:38, and argued that this interpolation demonstrated that the distance between the aircraft was always more than the 737 crew testified. The fault in this attempt lies in the fact that there is no evidence that respondent indeed traveled in that straight line. We know that respondent was flying directly towards the 737. We do not know at what point he veered off, and radar interpolations do not tell us. The best evidence of record is the 737 crew's eyewitness testimony. As pilots they have a better-than-normal

[8] Respondent himself testified that he was 1000 feet vertical and 1500 feet horizontal from the 737. Tr. at 236. Even this distance is problematic at the speeds involved.

ability to estimate distance in the air. Accord Administrator v. Reinhold, supra (parties' estimates of distances can be more accurate, given limitations of radar data).[9]

Finally, respondent argues that the Administrator is to blame for any potential danger because FAA policy requires the transponder in the wing aircraft in a formation flight to be in the standby position. As a result, respondent argues, ATC did not have respondent as a primary target on his scope. Therefore, when the two formation aircraft lost separation, ATC did not know it.

We can see both pros and cons to the FAA policy, but regardless, respondent failed to take the reasonable actions he was obliged to take that would have eliminated or lessened the collision hazard. Respondent had a means of communicating both with the lead aircraft and with ATC. He failed to do so, and for quite some time. Tr. at 234-236. The record (which is supported by case law[10]) demonstrates that he should have done so. His choice -- to try to find the lead aircraft visually, rather than announcing the loss -- was the proximate cause of the event. That ATC could have made the first contact and redirected him, had his transponder been on, is not a basis for excusing respondent's error of judgment.[11]

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[9] The point should be obvious, but even one of respondent's experts testified that he could not tell in between actual hits how close the aircraft could have gotten. Tr. at 281.

[10] See Administrator v. Hamer, NTSB Order No. EA-3587 (1992).

[11] Respondent also argues that the secondary radar returns for (continued…)

ACCORDINGLY, IT IS ORDERED THAT:

1. Respondent's appeal is denied; and

2. The initial decision is affirmed.

HALL, Chairman, FRANCIS, Vice Chairman, HAMMERSCHMIDT, GOGLIA, and BLACK, Members of the Board, concurred in the above opinion and order.

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(continued…)
his aircraft were available to ATC, and that the departure controller failed to monitor and act on them when the two formation aircraft diverged. There is absolutely no evidence for this proposition. Rather, the record uniformly supports the conclusion that these secondary targets were not picked up during the crucial period. See, e.g., Tr. at 156-162.